

DRAFT STORMWATER POLICY AND STORMWATER MANAGEMENT PLAN

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Responsible Officer: Director Built Environment & Infrastructure
Ward(s) affected: (All Wards);

The author(s) of this report and the Responsible Officer consider that the report complies with the overarching governance principles and supporting principles set out in the Local Government Act 2020.

CONFIDENTIALITY

This item is to be considered at a Council meeting that is open to the public

SUMMARY

The Draft Stormwater Policy and Stormwater Management Plan 2024-2034 have been developed following extensive research and targeted engagement with internal and external stakeholders. These documents aim to strategically manage flood risk and protect and maintain the natural water cycle and health of waterways from urban development impacts. They establish a framework and action plan for the Council to plan for future growth and sustainable stormwater management within the municipality.

The project team is seeking Council endorsement for the release of the draft Stormwater Policy and Stormwater Management Plan for community engagement for six weeks from 12 June 2024 to 24 July 2024.

A dedicated webpage with information on the Stormwater Policy and the Stormwater Management Plan will be promoted using various communication tools.

During the engagement period, the project team will conduct workshop sessions specifically for community members directly impacted by flooding. This session will feature presentations from the Project Consultant, Yarra Ranges Council (YRC) Officers, and representatives from Melbourne Water. Participation in this workshop will be by invitation only for residents and businesses directly affected by flooding. The purpose of this session is to provide a platform for the community to share their experiences of flooding, gain insight into the roles and responsibilities of various agencies, and enhance understanding of Stormwater Management within Yarra Ranges.

RECOMMENDATION

That Council release the Draft Stormwater Policy and Stormwater Management Plan for a six-week community engagement period from 12 June 2024 to 24 July 2024

DISCUSSION

Purpose

The purpose of this report is to seek Council support to release the Draft Stormwater Policy and Stormwater Management Plan for a six-week community engagement period.

Background

The Yarra Ranges municipality is the largest local government area in Melbourne, spanning 2,450 square kilometres. Most of the upper catchment consists of protected forests, while development is spread across rural and urbanised areas.

The population of Yarra Ranges is projected to increase by 20% (an annual growth rate of 0.7%), reaching 186,000 residents by 2041. This growth will not be uniform across the municipality. The highest growth rates are expected in the western, urbanised parts of Yarra Ranges, including Lilydale, Chirnside Park, Mooroolbark, and Kilsyth, where most development opportunities and infrastructure are located. The Council Plan highlights the need to plan appropriately for future growth and consider the impact of increased infill development across the municipality.

When Yarra Ranges was first developed, it was predominantly a farming and mining area, which meant there was lots of open space to absorb water when it rained or space for it to flow into many gullies and creeks. Today, with less open space and more hard surfaces, water flows more rapidly from roofs and roads into underground drainage networks and then into waterways. The impacts of developments and increase in hard surfaces is outlined in Figure 1 below.

We are now seeing an increase in extreme weather events. During heavy rain, the underground drainage system cannot always capture the volume of water hitting the ground. This can result in localised flooding as the water moves through natural flow paths. It is not always possible to fix localised flooding by simply adding new drains or making drains bigger, as this could shift the problem downstream. The best approach is to model and plan for where flooding might occur, allowing for the safe flow of water while minimising the impact on buildings, businesses, and other infrastructure.

Current benchmarking practices to stormwater management consider not only flood hazards but also the impact on the receiving waterways and how it can be best managed to achieve multiple community and ecosystem benefits.

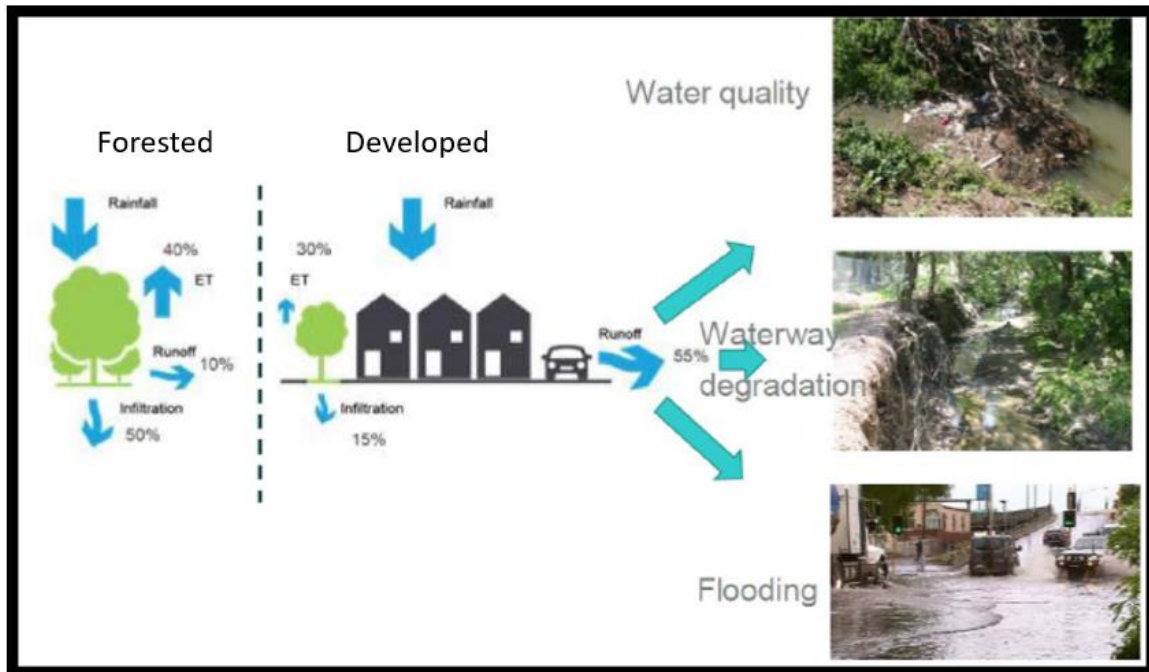


Figure 1: Impacts of increased run-off

Draft Stormwater Policy and Stormwater Management Plan 2024-2034 have been developed following extensive research and targeted engagement with internal and external stakeholders. These documents aim to strategically manage flood risk and protect and maintain the natural water cycle and health of waterways from urban development impacts. They establish a framework and action plan for the Council to plan for future growth and sustainable stormwater management within the municipality.

Draft Stormwater Policy

The purpose of the Stormwater Policy is to:

- To define Council's scope, roles, and responsibilities it relates to stormwater management.
- Outline Yarra Ranges Council's objectives for stormwater management.
- To assist Council, manage its legal drainage obligations.
- To provide a framework for stormwater management within the municipality.

Draft Stormwater Policy can be found within Attachment 1 to this report.

Draft Stormwater Management Plan 2024-2034

The Stormwater Management Plan 2024-2034 aims to address the challenges of stormwater management within the Yarra Ranges municipality. The detailed Stormwater Management Plan can be found in Attachment 2 to this report and an overview document of Stormwater Management Plan can be found in Attachment 3.

The plan focuses on balancing flood protection with the preservation of natural waterways, considering the impacts of urban development and climate change. The Stormwater Management Plan outlines strategies to improve stormwater infrastructure, manage flood risks, enhance water quality, and promote sustainable development practices.

The Key Objectives of the Stormwater Management Plan are:

- Utilising Stormwater as a resource
 - Increase fit-for-purpose use of stormwater and rainwater.
- Existing and future flood risks are managed to maximise outcomes for the community.
 - Reduce the impacts of dangerous flooding now and into the future with development and climate change.
 - Increase cross-consideration of flood mitigation and integrated water management.
 - Improve community education around the flood management function of roadways.
- Healthy and valued waterways
 - Reduce the total urban stormwater runoff volume discharged to receiving waters.
 - Decrease pollutants discharged to receiving waters.
 - Protect high value waterways.
- Healthy and valued urban and rural landscapes.
 - To minimise increases in stormwater due to development and protect the environmental values and physical characteristics of the landscape from degradation by stormwater.
 - To ensure integrated stormwater management that maximises ecosystem services, such as cooling and local habitat improvement, and provides attractive and enjoyable spaces.
- Community values are reflected in stormwater planning.
 - Increase organisational capacity to partner with Traditional Owners to be able to respectfully acknowledge the connection of Traditional Owners to the land and waterways and include indigenous knowledge in stormwater management.

- Engage with the community during flood mapping and stormwater management projects and studies to support and enhance community connection with and understanding of the water cycle.
 - To enable better asset management with improved efficiencies and overall cost reductions for Council via strategic planning
 - Respond to climate and climate change related events through resilience planning.
- Strategic Partnerships
 - Increased collaboration with other organisations to support strategic stormwater management.

The Stormwater Management Plan implementation plan provides a structured approach to achieving its objectives through thirty-one specific actions. Overview of the key actions is outlined below:

Flood Mapping Program

A flood mapping program is a fundamental component of the Stormwater Management Plan, aimed at identifying flood-prone areas across the Yarra Ranges municipality. The plan includes an action to develop flood maps of key areas within the municipality, including rural areas, over the next 10 years. This initiative will use historical flood data and modern mapping techniques to accurately predict where water will flow and where flooding may occur during storm events. The benefits of this initiative include;

- Analysing Flooding Depth, Extent, and Hazard: This involves assessing different types of rainfall events to identify affected buildings and the potential impact on properties and infrastructure.
- Identifying Drainage Constraints: Through flood modelling will pinpoint bottlenecks and areas prone to inundation, providing a clear understanding of where improvements are needed.
- Prioritising Council led Projects: Based on the known flood risk levels, resources can be allocated appropriately to mitigate potential damages.
- Identifying Natural Flow Paths: The initiative will explore larger Integrated Water Management (IWM) projects to minimise downstream impacts and enhance overall water quality.
- Supporting Efficient Drainage Maintenance: Blockage analysis will help the council identify critical infrastructure and support a proactive maintenance program, ensuring that the drainage system operates at its optimal capacity and addressing any issues promptly.

Infrastructure Upgrades

Upgrading ageing drainage infrastructure and installation of new drainage is important to enhancing resilience against flood risks and climate change impacts. The Stormwater Management Plan includes a thorough survey of existing drainage assets in critical areas, followed by targeted upgrades based on the findings from flood risk assessments. A key component of this effort is to develop and prioritise a program of works focused on the mitigation and adaptation of the existing drainage network. Critical areas will be determined through a combination of flood mapping and hazard categorisation assessment, ensuring that interventions are data-driven and strategically targeted.

Incorporating climate change projections into infrastructure design is essential to future-proof these systems, ensuring they can handle increased rainfall intensity and frequency. These upgrades not only improve flood protection but also enhance the overall reliability and efficiency of the stormwater management system. By proactively addressing the vulnerabilities in the existing drainage network, the municipality can significantly reduce the risk of flood damage and improve the community's resilience to extreme weather events.

Water Sensitive Urban Design (WSUD) and Integrated Water Management (IWM) Initiatives

Water Sensitive Urban Design (WSUD) and Integrated Water Management (IWM) are key strategies for managing stormwater sustainably while improving water quality and overall water resource management. The Stormwater Management Plan advocates for integrating WSUD principles into new developments and public spaces. This includes measures such as permeable pavements, green roofs, rain gardens, and bio-retention systems that manage runoff at its source. These elements help reduce stormwater runoff, enhance infiltration, and improve water quality by filtering pollutants.

IWM takes a holistic approach to water management, considering all aspects of the urban water cycle, including potable water, wastewater, stormwater, and groundwater. The plan promotes the use of rainwater and stormwater for non-potable purposes, such as irrigation, toilet flushing, and industrial processes in residential, commercial, and industrial areas. This approach not only conserves potable water resources but also reduces the volume of stormwater requiring management.

The integration of WSUD and IWM practices helps create resilient urban environments that are better equipped to handle extreme weather events and changing climate conditions. These practices support the creation of green spaces that enhance urban biodiversity, mitigate the urban heat island effect, and provide recreational opportunities for the community. By incorporating these sustainable water management practices, the Stormwater Management Plan aims to build a more liveable and resilient municipality.

Community Engagement and Education

Engaging the community and educating residents about stormwater management is crucial for the success of the Stormwater Management Plan. The plan emphasises developing and distributing educational materials, such as fact sheets, to inform the community about flood risks, WSUD, and IWM practices, and individual responsibilities in managing stormwater. By involving community groups and stakeholders in planning and decision-making processes can foster a sense of ownership and collaboration.

A significant initiative in this regard is the establishment of a Community Reference Panel. This panel will consist of representatives from diverse community groups and stakeholders who will provide input and feedback on stormwater management projects and strategies. The Community Reference Panel will serve as a bridge between the municipality and its residents, ensuring that community concerns and suggestions are considered in the decision-making process. This participatory approach ensures that the community is well-informed and actively contributing to stormwater management efforts, enhancing the plan's effectiveness and community acceptance.

Development Engineering Guidelines and Stormwater Offsets Program

To support the effective implementation of the Stormwater Management Plan, existing policies and guidelines need to be updated and enhanced. The Development Engineering Guidelines play a crucial role in setting the standards for stormwater management practices within new developments. The Stormwater Management Plan calls for revising these guidelines to improve the conveyance of Council's technical requirements for stormwater and associated works, with improvements to allowing them to be more clearly understood up front by land developers and engineering consultants so that the plans can be prepared to the necessary standard, endorsed efficiently with minimum delay, and constructed to an acceptable sustainable standard.

Additionally, the investigation of Council Stormwater Offsets program is an important initiative. The current Stormwater Offset Program requires developers to make a financial contribution to Melbourne Water, which then allocates funds to councils based on project priorities. However, a Council Offset Program allows the municipality to receive financial contributions directly towards council projects. This program would enable Council to prioritise and fund stormwater management projects that align with local needs and strategic goals.

The funds collected through the offsets program can be used to implement larger-scale stormwater management infrastructure, such as wetland construction, waterway restoration projects, and enhanced flood control measures. This program ensures that the impact of new developments on the stormwater system is managed, even when site-specific constraints prevent the full implementation of WSUD measures.

The stormwater offsets program encourages sustainable urban development by providing a flexible yet effective means for developers to meet their stormwater

management obligations. By updating the Development Engineering Guidelines and implementing the stormwater offsets program, the Council can ensure that all development activities contribute positively to the overall stormwater management goals, promoting a more sustainable and resilient urban environment.

Strategic Partnerships and funding

The success of the Stormwater Management Plan relies on strong partnerships and adequate funding. Strengthening collaborations with agencies such as the Department of Energy, Environment and Climate Action (DEECA) and Melbourne Water (MW) will be crucial for implementing joint stormwater projects. The plan also explores various funding mechanisms, including grants, developer contributions, and stormwater offsets, to support its initiatives. Securing diverse funding sources ensures the sustainability of the program and enables the municipality to carry out the necessary actions to achieve its stormwater management goals.

FINANCIAL ANALYSIS

The Stormwater Management Plan includes an implementation plan with costings for each action. These actions are to be delivered through existing funding allocations, future Capital works and external funding sources.

SUSTAINABILITY IMPLICATIONS

Economic Implications

The Stormwater Management Plan outlines various economic implications that focus on both short-term costs and long-term savings. Implementing effective stormwater management practices can lead to significant economic benefits by reducing flood damage to infrastructure and private properties, which can otherwise lead to costly repairs and insurance claims. Furthermore, the plan includes exploring funding mechanisms such as stormwater offsets, developer contributions, and grants to support sustainable stormwater management initiatives.

Social Implications

Social implications of the Stormwater Management Plan include improved community health and well-being through the reduction of flood risks and enhancement of green spaces. The plan emphasises the importance of integrating WSUD to create urban environments that are more liveable and resilient to climate change. Greening urban areas and supporting tree canopies contribute to cooling urban heat islands, which can significantly improve the quality of life, particularly during extreme heat events. Additionally, the plan highlights the need for transparent communication about climate change impacts and the involvement of community groups in stormwater management projects, fostering a sense of ownership and collaboration within the community.

Environmental Implications

From an environmental perspective, the Stormwater Management Plan aims to protect and restore natural habitats, improve water quality, and enhance the health of urban waterways. The plan supports actions such as stormwater harvesting and the integration of urban development with water cycle management to create a resilient and liveable city. By adopting WSUD and IWM initiatives, the plan seeks to mitigate the impacts of urbanisation on natural water cycles, reduce runoff, and enhance biodiversity. The focus on climate change adaptation ensures that the infrastructure and ecosystems are resilient and capable of withstanding future climate conditions, thereby preserving the environment for future generation.

COMMUNITY ENGAGEMENT

Next stage of the project will include a six-week community engagement period. A dedicated webpage with information on the Stormwater Policy and the Stormwater Management Plan will be promoted using various tools outlined in the project's Communications Plan outlined in Table 1.

During the six-week engagement period, the project team will conduct workshop sessions specifically for community members directly impacted by flooding. These sessions will feature presentations from the Project Consultant, Yarra Ranges Council (YRC) Officers, and representatives from Melbourne Water. Participation in this workshop will be by invitation only for residents and businesses directly affected by flooding. The purpose of this session is to provide a platform for the community to share their experiences of flooding, gain insight into the roles and responsibilities of various agencies, and enhance understanding of Stormwater Management within Yarra Ranges.

Communications Plan for the Stormwater Policy and Management is outlined in Table 1 below.

| Tool | Description | Engagement Level |
|--------------------|--|------------------|
| Websites | Engagement Page with copy of Stormwater Policy and Stormwater Management Plan. | Inform & Consult |
| Designed documents | Summary Document of the Stormwater Management Plan | Inform |
| FAQs | On Council's Engagement Page | Inform |
| Media release | Media briefing to explain how the Stormwater Policy and Management Plan impacts our residents. Media release with information on the final Stormwater Management Plan Guidelines and Policy following Council approval. | Inform |
| E-newsletters | Provide content for e-newsletters including: <ul style="list-style-type: none"> The Source YR Local, | Inform |

| Tool | Description | Engagement Level |
|--------------------|--|----------------------------|
| | <ul style="list-style-type: none"> • Business • Disability • Hills/Valley e-newsletters etc. | |
| Community workshop | <p>Listening session and workshop for directly impacted community members. Event will include presentations from Project Consultant, YRC Officers and Melbourne Water.</p> <p>Collateral will include (but not be limited to):</p> <ul style="list-style-type: none"> • Invitation email • Presentation material • Factsheets • Maps • Historical information/maps/imagery <p>This will be an invited event only Council will invite residents/businesses that are directly impacted by flooding are invited to tell their stories.</p> <p>At these sessions information provided on the Stormwater Policy and Management Plan.</p> | Inform & Educate & Consult |
| Emails | Emails will be sent all community members who have subscribed to The Source newsletter. | Inform & Consult |

COLLABORATION, INNOVATION AND CONTINUOUS IMPROVEMENT

The project team has conducted an extensive literature review and engaged with key stakeholders, including Councillors, MW, various Councils, DEECA, the Yarra Ranges Council (YRC) Sustainable Environmental Advisory Committee, the YRC Indigenous Advisory Committee, and Development Engineering Consultants. These activities aimed to identify gaps in stormwater management and benchmark best practices, informing the development of the draft Stormwater Policy and Stormwater Management Plan.

CONFLICTS OF INTEREST

No officers and/or delegates acting on behalf of the Council through the Instrument of Delegation and involved in the preparation and/or authorisation of this report have any general or material conflict of interest as defined within the *Local Government Act 2020*.

ATTACHMENTS TO THE REPORT

1. Draft Stormwater Policy
2. Draft Stormwater Management Plan 2024-2034
3. Draft Stormwater Management Plan 2024-2034 – Overview